B-200 (UC-12B) - LARC 06/24/13

Aircraft: B-200 (UC-12B) - LARC (See full schedule)
Flight Number: DAWN 2013 R-3
Payload Configuration: NASA Langley's Doppler Aerosol Wind Lidar System (DAWN)
Nav Data Collected: No
Total Flight Time: 2.4 hours
Submitted by: Gregory L. Slover on 06/26/13
Flight Segments:

From:	KLFI	**To:**	KLFI
Start:	06/24/13 15:56 Z	**Finish:**	06/24/13 18:20 Z
Flight Time:	2.4 hours		
Log Number:	13B012	**PI:**	Michael Kavaya
Funding Source:	Bruce Fisher - NASA - SMD - ESD LARC Chief Engineer, Research Services Directorate		
Purpose of Flight:	Science		
Comments:	Problems with the instrument required most of the transit to resolve but DAWN was ready prior to entering the Warning area. Transit to the Ocean City test area was at 11,000 ft on an IFR flight plan (with about a 30 knot tailwind) to the SBY 082/26 for W-386 entry. Radial and DME was picked to line up for the first transit waypoint. Recommend moving that point further south on a direct line from the SWL VOR to minimize transit times. We entered the Warning area at 11,000 feet and had to spiral down to 5000 feet before the first point (and the required 30 seconds wings level). Weather in the entire offshore area was clear with at least 25 NM of visibility looking towards the shoreline, wave conditions indicated about 15 Knots of wind at the surface (occasional whitecap but no apparent streaking) with long regular swells. At approximately 150 KIAS with winds out of the SW at about 15 KTS, the turns averaged about 22-25 deg AOB to obtain reasonable lineups. Needed to refresh myself with the normal Garmin-696 one to two sec display lag when rolling out of a steep turn. First two runs were less than the pilot desired accuracy on the data line. The twelve line pattern was commenced with approximately 1700 lbs of fuel and completed with 1050 lbs and took one hour and seven minutes. Pattern details are below: Line Point/time Point/ time 1 OC01W/1234 OC01E/1235 3 OC03E/1238 OC03W/1240 5 OC05W/1243 OC05E/1245:17 7 OC07E/1248:58 OC07W1252:17 9 OC09W/1255:28 OC09E/1258:24 11 OC11E/1302:05 OC11W/1305:08 12 OC12W/1308 OC12E/1310:50 10 OC10E/1313:54 OC10W/1316:40 Started 300’ south of track 8 OC08W/1321:02 OC08E/1324:16 6 OC06E/1327:59 OC06W/1330:57 4 OC04W/1333:54 OC04E/1336:10 2 OC02E/1339:57 OC02W/1341:37 Return to Langley was performed with VFR flight following at 8500 ft MSL. Enroute to LFI two additional points were overflown approximately 4 NM ENE form the CCV VOR. These points wer eloaded into the G-696 during the preflight brief. They are labeled EST04 and EST01 (Eastern Shore Turbine site #4 and site #1). Coordinates were provided by Grady Koch as #4 N37 21’41.09”/W75 54”06.25” and #1 N37 20’37.05”/W75 54’44.40. These points were overflown at 8500 feet MSL at the times below: #4 1408:53 #1 1409:18		

Flight Hour Summary:

	13B012
Flight Hours Approved in SOFRS	25
Total Used	23.9
Total Remaining	1.1

13B012 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
06/12/13	DAWN 2013 ICF#1	Check	3.1	3.1	21.9	
06/14/13	DAWN 2013 R-1	Science	2.1	5.2	19.8	
06/21/13	DAWN 2013 R-2	Science	2	7.2	17.8	

06/24/13	DAWN 2013 R-3	Science	2.4	9.6	15.4
06/26/13	DAWN 2013 R-4	Science	2.3	11.9	13.1
06/28/13	DAWN 2013 R-5	Science	2.5	14.4	10.6
07/09/13	DAWN 2013 R-6	Science	3.2	17.6	7.4
07/10/13	DAWN 2013 R-7	Science	2	19.6	5.4
07/17/13	DAWN 2013 R-8	Science	2.3	21.9	3.1
07/23/13	DAWN 2013 R-9	Science	2	23.9	1.1

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

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